# KYANITE AND RELATED MATERIALS STATISTICS

# By Thomas D. Kelly and Michael J. Potter

 $[All\ values\ in\ metric\ tons\ (t)\ unless\ otherwise\ noted]$ 

Last modification: September 30, 2002

				Apparent	•	Unit value	World
Year	Production	Imports	<b>Exports</b>	consumption	( <b>\$/t</b> )	(98\$/t)	production
1928		_	_	_			2,280
1929							3,680
1930							8,780
1931							3,470
1932							5,700
1933							4,480
1934					45.70	556.00	9,720
1935					25.40	302.00	20,200
1936					33.10	388.00	25,400
1937		6,960			39.17	443.00	27,400
1938		3,600			45.23	523.00	29,000
1939		3,070			51.30	602.00	14,600
1940		6,950			51.30	597.00	13,000
1941		13,000			44.60	495.00	21,500
1942		5,920			33.90	339.00	25,300
1943		9,050			33.90	319.00	22,700
1944		5,520			39.40	365.00	14,800
1945		13,700	279		39.40	357.00	14,800
1946		10,300	310		31.10	260.00	22,800
1947		11,100	217		31.10	227.00	43,400
1948		15,500	419		38.00	257.00	46,400
1949		11,000	943		34.70	238.00	61,100
1950		15,800	854		34.70	235.00	57,500
1951		17,800	898		38.00	238.00	72,600
1952		8,220	1,020		38.00	234.00	66,800
1953		6,010	936		38.00	232.00	46,500
1954		4,380	1,040		44.60	270.00	72,500
1955		6,880	1,560		38.00	231.00	38,400
1956	21,800	6,310	1,210		38.00	228.00	57,700
1957	18,000	5,440	2,350		38.00	220.00	82,300
1958	14,800	1,780	2,260		38.00	214.00	76,400
1959	16,500	5,110	2,480		53.50	300.00	77,300
1960	19,500	5,490	2,950		53.50	295.00	95,300
1961	13,400	4,910	3,630		53.50	292.00	133,000
1962	17,300	4,790	3,240		53.50	289.00	134,000
1963	26,800	2,380	4,580		53.50	285.00	115,000
1964	32,800	2,160	5,520		57.90	304.00	120,000
1965	36,300	3,670	9,290		57.90	300.00	116,000
1966	45,000	3,090	15,700		57.90	291.00	133,000
1967	36,500	1,650	19,400		57.90	283.00	133,000
1968	32,700	1,320	18,600		77.70	364.00	121,000
1969	44,100	1,890	17,900		74.40	330.00	142,000
1970	50,400	1,070	21,800		67.20	282.00	200,000
1971	50,000	1,220	28,600		72.20	291.00	186,000
1972	42,100	112	67,100		72.20	282.00	176,000
1973	52,800	200	85,000		72.20	265.00	200,000
1974	37,700	176	123,000		78.30	259.00	181,000
1975	21,900	59	136,000		99.80	302.00	193,000
1976	38,300	100	57,500		99.80	286.00	230,000
1977	36,500	48	35,200		93.10	250.00	253,000
1978	34,500		36,300		99.20	248.00	238,000
1979	36,900		45,400		99.20	223.00	285,000

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				Apparent	Unit value	Unit value	World
Year	Production	Imports	<b>Exports</b>	consumption	( <b>\$/t</b> )	(98\$/t)	production
1980	36,800		45,400		109.00	216.00	354,000
1981	38,100		40,800		122.00	219.00	325,000
1982	24,500		36,300		122.00	206.00	291,000
1983	20,900		36,300		122.00	200.00	237,000
1984	24,500	6,800	40,800		130.00	204.00	283,000
1985	25,000	2,720	40,800		130.00	197.00	337,000
1986		4,540	45,000		130.00	193.00	296,000
1987		12,700	41,000		138.00	198.00	338,000
1988		8,890	45,000		138.00	190.00	377,000
1989		10,300	41,000		126.00	166.00	406,000
1990		17,700	35,000		126.00	157.00	399,000
1991		5,140	33,000		126.00	151.00	312,000
1992		6,000	35,000		141.00	164.00	320,000
1993		12,200	33,000		156.00	176.00	272,000
1994		7,900	35,000		171.00	188.00	282,000
1995		3,210	35,000		196.00	210.00	292,000
1996		11,300	35,000		208.00	216.00	326,000
1997		8,170	35,000		229.00	233.00	345,650
1998	129,000	9,610	35,000	104,000		213.00	463,700
1999	129,000	6,290	35,000	100,000		205.00	364,100
2000	130,000	6,440	35,000	101,000	222.00	210.00	405,974

## **Kyanite and Related Materials Worksheet Notes**

## **Data Sources**

The sources of data for the kyanite worksheet are the mineral statistics publications of the U.S. Bureau of Mines and the U.S. Geological Survey—Minerals Yearbook (MYB), and Mineral Commodity Summaries (MCS) and its predecessor, Commodity Data Summaries (CDS). The years of publication and corresponding years of data coverage are listed in the References section below. Blank cells in the worksheet indicate that data either were not available or were withheld from publication because they are proprietary.

#### **Production**

Production data refers to the production of synthetic mullite for the years 1956–85. Synthetic mullite and kyanite production data for all other years were not published because they are proprietary except for the years 1998–2000. Production data are from the MYB. Data for 1998-2000 are estimates of synthetic mullite and kyanite production published in the MYB.

## **Imports**

Import data refer to imports of kyanite and related materials. For the years 1937–77 and 1984–2000, import data are from the MYB. Data for other years were not available.

# **Exports**

Export data refer to an estimate for kyanite and related materials exported from the United States. For the years 1945–77 data are from the MYB. For the years 1978–2000, data are from the "Salient Statistics" table in the MCS. Export data prior to 1945 were not available.

## **Apparent Consumption**

Apparent consumption data are not available for the years 1928–97, because production data are proprietary. For the years 1998–2000, an estimated apparent consumption is published in the MCS.

### Unit Value (\$/t)

Unit value is defined as the value of 1 metric ton (t) of kyanite apparent consumption. The prices from the MYB for raw and calcined U.S. kyanite were averaged to estimate unit value for kyanite. This is a rough estimate; and the values may be greater if additional data for mullite production (weight and value) were available. The graph below shows the higher values for mullite production compared to the kyanite price series.

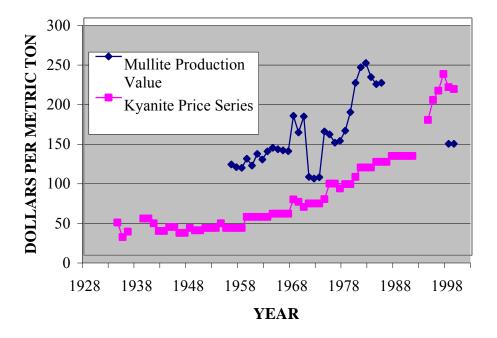


Figure 1. Unit Value Comparison

Estimated unit value data for kyanite (price series) were interpolated for the years 1937–38 and 1992–93.

#### Unit Value (98\$/t)

The Consumer Price Index conversion factor, with 1998 as the base year, is used to adjust unit value in current U.S. dollars to the unit value in constant 1998 U.S. dollars.

#### **World Production**

World production data for the years 1928–60 are from the "World Production" table in the 1960 MYB. World production data for the years 1961–70 were from the "World Mine Production" table in the CDS. World production for the years 1971–2000 were from the MYB.

## References

- U.S. Bureau of Mines, 1933-96, Minerals Yearbook, 1932-94.
- U.S. Bureau of Mines, 1962–77, Commodity Data Summaries, 1962–77.
- U.S. Bureau of Mines, 1978-95, Mineral Commodity Summaries, 1978-95.
- U.S. Geological Survey, 1997–2000, Mineral Commodity Summaries, 1997–2000.
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- U.S. Geological Survey and U.S. Bureau of Mines, 1996, Mineral Commodity Summaries, 1996.

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